

A Private Conversation
By Bill O'Brien

Aviation maintenance is experiencing a boom time. Since late January, my office has been bombarded with calls, of which half were from FBOs, manufacturers, repair stations, and airlines who need technicians. The other half of the phone calls were from experienced technicians who are looking for better jobs and from young men and women who are curious about a career in aviation maintenance. While the FAA is not a job bank, we do hear from time to time who is hiring and we try to help everyone.

But the men and women who are expressing an interest in becoming technicians are who I would like to focus on today. When I receive a call from an individual who wants information on how to become a technician, I usually only have time to explain the FAA requirements for technicians and repairmen certification in a cold, logical telephone-reply format.

Between my description and some additional questions from the caller, the conversation usually takes about 10 to 12 minutes. Because I only hear their questions and not see their reactions to my answers, it's hard for me to "read" their body language to sense if they are really serious about being a technician or just on an information fishing expedition.

So for those individuals who are truly serious about being a technician, this article is dedicated to you. I have divided the article into two parts. The first is the cold hard facts on what it takes to be a technician. The second part is what makes up the human side of our profession and how to become a professional.

Part 1: maintenance occupations

There are two types of maintenance technicians: noncertificated technicians and FAA-certificated technicians.

Noncertificated —

A noncertificated technician can work only under the supervision of an FAA-certificated person. Noncertificated technicians work in manufacturing, FAA repair stations, air carriers, and fixed base operators.

Since these technician's are not certified by the FAA, there are no FAA requirements to meet. However, an applicant must still meet the employer's requirements. As a noncertificated technician, he or she personally cannot sign off a maintenance record "approving the aircraft or component for return to service." Because of this limitation, a noncertificated technician is restricted in scope, function, or duties, he or she can perform. This limited level of responsibilities also reduces the chances of advancement in the maintenance career field.

FAA-Certificated Technicians and Repairmen —

The FAA certifies aviation maintenance personnel in two ways: a technician certificate and a repairman certificate.

• Certified technician requirements (ref: far 65.71--65.89)

The vast majority of technicians are certificated as FAA technicians. Under a FAA technician's certificate, there are two ratings: airframe and powerplants. Although most certificated technicians hold both ratings and are referred to in the industry as A&Ps, there are also many technicians certificated only in the airframe (A) rating or only in powerplants (P) rating.

To become a FAA-certificated technician an applicant must:

1. Be 18 years of age or older
2. Be able to read, write, and understand English

(Note: an individual who does not meet this requirement will have his certificate stamped "valid only outside of the United States.")

3. Must pass written examinations, an oral test, and a practical test for each rating
4. Pass all the prescribed tests within 24 months
5. Be a graduate of an approved FAA aviation maintenance technician school, show 18 months practical experience for each rating, or show 30 months concurrent practical experience for both ratings

- Repairman requirements:

(ref: 65.101---65-105)

Repairmen are maintenance technicians that are certified by the FAA for only one or two specific tasks. Because they are limited by function, they can only exercise the privileges of the repairman certificate by being under the supervision of an FAA-approved repair stations, commercial operators, and air carriers where these specific tasks are routinely accomplished on a daily bases. To be eligible for a repairman certificate an applicant must be:

1. 18 years of age
2. Read, write, and understand the English language. (Note: this may be waived for repairman living outside the United States)
3. Specially qualified to perform maintenance on aircraft or components.
4. Employed for a specific job requiring the special qualifications by a FAA-certificated repair station, a certificated commercial operator, or a certificated air carrier.
5. Recommended for the repairman certificate by his or her employer.
6. Have either:
 - a. 18 months practical experience in the specific job function (industry x-ray technician)
 - b. Complete a formal training course acceptable to the FAA

Avionics Occupations

Avionics technicians work on some of the most advanced electronic equipment outside of a electronic research and development laboratory. It is not uncommon for the avionics bay of an air carrier aircraft to hold eight to ten million dollars of black boxes, all of which need a highly qualified person to maintain them.

An individual who holds an FAA technician certificate with an airframe rating, is authorized under his rating to maintain avionics equipment. But this privilege is allowed only if that individual is properly trained, qualified, and has the proper tools and equipment to perform the work.

There are also uncertificated individuals working for air carrier avionics departments or FAA-certificated avionics repair stations who have gained experience in avionics repairs from serving in the military.

Individuals who wish to become aircraft technicians can follow one to three paths to meet the experience requirements for the FAA airframe and powerplants certificate.

1. An individual can work for a FAA repair station or FBO under the supervision of an A&P technician for 18 months for each individual airframe or powerplants rating. Or work for a total of 30 months to be eligible for both ratings if the individual worked on both airframe and powerplants concurrently.

The FAA considers a “month of practical experience” to contain at least 160 hours, so a total of 4,800 hours of practical experience must be documented under the 30 month requirement or 2,880 hours for a single rating or 5,760 hours if the applicant only worked on airframes for 18 months and then powerplants for 18 months.

The FAA does not recognize time spent in formal military or industry classroom training as counting towards the practical experience requirement. The pay for a trainee is usually minimum wage and all experience earned must be documented and signed off by an certificated person. Additional study time will be required to prepare for the nine examinations for the A&P rating.

2. An individual can join one of the armed services and obtain valuable training and experience in aircraft maintenance or avionics. Care must be taken that an individual enters that military occupational specialty (MOS) is one that the FAA credits for practical experience for the technicians certificate.

Prior to joining the military get a list of the acceptable MOS codes from the local FAA Flight Standards District Office and compare it against the military MOS that you apply for. When the individual's military tour is over he or she must spend additional study time preparing for the test as well as present evidence to the FAA of the practical experience they have earned.

3. An individual can attend one of the 171 FAA Part 147 approved aircraft maintenance technician schools nationwide. These schools offer training for one technician's rating or both. Many schools offer avionics course which cover electronics and instrumentation.

For most Part 147 schools, a high school diploma or a general education diploma (GED) is usually an entrance requirement for most schools — this is because most prospective employers want to see the high school diploma. By regulation, the length of the FAA-approved course in a Part 147 is 1,900 hours of training. Because some schools have five-hour days, others have eight-hour sessions, and still others have additional or advanced classes, it usually takes between 12 months to 24 months to graduate. But even if it take one to two years to earn a technician certificate, this is a shorter length of time than that the FAA requires for on-the-job training for both ratings.

Upon graduation from the school, the individual is qualified to take the FAA exams. A positive benefit of attending a Part 147 school is the starting salary is usually higher for a graduate than for an individual who earns his certification strictly on military or civilian experience.

Reference Material

AC 65.11b airframe and powerplant technicians certification information, for additional information of technician certification:

Ac 65.24 certification of a repairman (general information)

Advisory circular 147-2y directory of FAA-certificated aviation maintenance technician schools.

To obtain a list of the names and locations of FAA-certificated Part 147 schools, send \$1 to the superintendent of documents, Government Printing Office Washington, DC 20402-9371 and ask for speed handling; use stock number SN 050-007-007540-0.

For educational assistance, contact the Department of Education, Office of Student Financial Assistance, 400 Maryland Ave., SW Washington DC 20202.

A comprehensive list of all airlines, repair stations, manufacturers, and fixed base operators, can be found in the world aviation directory at the reference section of your local library. This resource document will provide you with a number of job contacts in the location and maintenance field in which you wish work.